CLAIMS

What is claimed is:

1. An explosive comprising one or more fullerene compounds.

2. The explosive of claim 1 wherein at least one of said one or more fullerene compounds comprises a CHNO-based explosive.

3. The explosive of claim 1 wherein at least one of said fullerene compounds is nitrated or functionalized with a nitro-containing compound.

4. The explosive of claim 3 wherein at least one of said fullerene compounds comprises one or more of the group consisting of C_{60} dodeconitrate, other $C_{60}(NO_2)_n$ compounds where n is between 1 and 60, other nitrated fullerene compounds, and fullerene compounds otherwise functionalized with a nitro-containing compound.

5. The explosive of claim 3 comprising at least approximately 10% nitrogen.

6. The explosive of claim 1 wherein at least one of said one or more fullerene compounds comprises single- or multi-walled carbon nanotubes.

7. The explosive of claim 6 wherein at least one of said one or more fullerene compounds comprises a matrix of carbon nanotubes.

8. The explosive of claim 7 wherein said matrix comprises buckypaper.

9. The explosive of claim 7 wherein said nanotubes are rendered explosive or energetic prior to forming said carbon nanotubes into said matrix.

10. Ordnance comprising the explosive of claim 1.

11. The ordnance of claim 10 wherein said ordnance comprises a member selected from the group consisting of bullets, artillery rounds, tank rounds, packaging materials, missiles, fuselages, nano-scale ordnance, micro-scale ordnance, and shell casings.

12. The ordnance of claim 11 wherein said ordnance comprises a member selected from the group consisting of nano-scale ordnance and micro-scale ordnance, and said ordnance protects valuable assets upon detection of tampering.

13. A method of making an explosive comprising providing one or more fullerene compounds and rendering at least one of the compounds explosive.

14. The method of claim 13 wherein the rendering step comprises rendering at least one of the one or more fullerene compounds into a CHNO-based explosive.

15. The method of claim 13 wherein the rendering step comprises nitrating or functionalizing with a nitro-containing compound at least one of the fullerene compounds.

16. The method of claim 15 wherein the rendering step comprises forming one or more compounds selected from the group consisting of C_{60} dodeconitrate, other $C_{60}(NO_2)_n$ compounds where n is between 1 and 60, other nitrated fullerene compounds, and fullerene compounds otherwise functionalized with a nitro-containing compound.

17. The method of claim 15 wherein the resulting explosive comprises at least approximately 10% nitrogen.

18. The method of claim 13 wherein at least one of the one or more fullerene compounds comprises single- or multi-walled carbon nanotubes.

19. The method of claim 18 wherein at least one of the one or more fullerene compounds comprises a matrix of carbon nanotubes.

20. The method of claim 19 wherein the matrix comprises buckypaper.

21. The method of claim 19 additionally comprising the step of forming the carbon nanotubes into a matrix after the rendering step.

22. A method of making ordnance comprising following the steps of claim 13 and forming the explosive into ordnance.

23. The method of claim 22 wherein the ordnance comprises a member selected from the group consisting of bullets, artillery rounds, tank rounds, packaging materials missiles, fuselages, nano-scale ordnance, micro-scale ordnance, and shell casings.

24. The method of claim 23 wherein the ordnance comprises a member selected from the group consisting of nano-scale ordnance and micro-scale ordnance, and the ordnance protects valuable assets upon detection of tampering.